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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/531,960	11/15/2005	Francesco Tramontana	05KAR010	8808
39232	7590	11/17/2009	EXAMINER	
Themis Law 7660 Fay Ave Ste H-535 La Jolla, CA 92037			ALHIJA, SAIF A	
			ART UNIT	PAPER NUMBER
			2128	
			NOTIFICATION DATE	DELIVERY MODE
			11/17/2009	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

contact@themisipc.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/531,960	<b>Applicant(s)</b> TRAMONTANA, FRANCESCO	
	<b>Examiner</b> SAIF A. ALHIJA	<b>Art Unit</b> 2128	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 August 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 2-4, 7-15, 17-28, 30-32, 34-38, 40-57 and 59-63 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2-4, 7, 14, 15, 23-28, 30-32, 34-38, 57 and 59 is/are allowed.
- 6) ☒ Claim(s) 8-13, 17-22, 40-56 and 60-613 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

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**DETAILED ACTION**

1. Claims 2-4, 7-15, 17-28, 30-32, 34-38, 40-57, and 59-63 have been presented for examination.

Claims 1, 5-6, 16, 29, 33, 39, and 58 have been cancelled.

**PRIORITY**

2. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The noted earliest effective priority date is 14 November 2002.

**Response to Arguments**

3. Applicant's arguments filed 17 August 2009 have been fully considered but they are not persuasive.

**NON-PRIOR ART ARGUMENTS**

i) The Examiner appreciates Applicants amendments to overcome the 112 2<sup>nd</sup> rejections previously presented. However two issues remain. First, the term non-identity has not been clarified since the language previously presented has been moved in the body of the claim rather than additional explanation provided as to its meaning. This also applies to new claim 61. Second, the generation and comparison of software previously rejected has not been adequately addressed. See 112 2<sup>nd</sup> rejection below.

**PRIOR ART ARGUMENTS**

ii) Applicants argue that the references taken alone or in combination do not teach a logical engine which controls the simulation program as well as a dynamic aspect of the model. With respect to the engine controlling the simulation the Examiner notes page 77, right column of D which teaches the design and creation of a model which is then formed into an executable entity. This entity as per the abstract of the reference is part of the overall model which includes a plant design as well as a control system design for the plant and the in process operation pursuant to the interaction of those two designs. This combination and conclusion can be seen in the citation of paragraph 77, left column provided below which discusses the testing of the control system in conjunction with the component interactions of the plant. The Examiner further notes that the claim makes no explicit recitation of a dynamic or real time environment. However the D references clearly recites that the model which is created, compiled, and executed is dynamic in nature. Applicants are respectfully requested to impart the limitations they intend with respect to the dynamic/real time aspect of the invention in a manner which overcomes the dynamic nature of the model discussed in the cited prior art of record.

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**Claim Rejections - 35 USC § 112**

**The following is a quotation of the second paragraph of 35 U.S.C. 112:**

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

**4. Claims 8-13, 17-22, 40-56, and 60-61 are rejected** under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

i) Claim 8 recites **“non-identity.”** It is unclear how to determine the scope, metes, and bounds of non-identity in the context of the claims. This renders the claims vague and indefinite. This also applies to claim 61.

ii) Claim 60 recites **“wherein the additional program is generated through means different from the plant simulation software”** as well as **“wherein the additional program and the plant simulation software are compared.”** It is unclear what is meant by these limitations. How are the programs compared? What constitutes different means of generating software? This renders the claims vague and indefinite.

Appropriate correction is required.

All claims dependent upon a rejected base claim are rejected by virtue of their dependency.

**Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. **Claim(s) 62 and 63** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Donne et al.**

**“Application of Modern Methods in Power Simulation and Control”, hereafter D**, in view of **Hamadou et al.**

**U.S. Patent Publication No. 2002/0059050 A1, hereafter H.**

**Regarding Claim 62:**

**The reference discloses** A device for checking a logical software engine for controlling and commanding a railway plant comprising a plurality of wayside operating units, the device comprising:

a central processing unit generating a command signal to the plurality of operating units, the plurality of operating units being configured to receive the command signal and generate a control signal about an operating condition, the control signal being transmitted to the central processing unit, the central processing unit reading the control signal and processing the command signal according to an operation protocol; and **(D. First paragraph, ACSL/MMS)**

one or more memories storing a logical engine commanding the railway plant, a plant simulation program, and a graphic program, ; **(D. Page 77, right column "full plant controllers")**

wherein the logical engine commands and controls the simulation program, **(D. Page 77, left column "control system and component interaction")**

wherein the plant simulation program simulates a railway plant structure and operating modes of the plurality of operating units, the plant simulation program comprising a control and command logical program and a simulation program representing operative functions of one or more plant components, **(D. Page 77, left column "control system and component interaction")**

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**D does not explicitly recite, however H discloses** wherein a plant component is an operating unit, a structural element, an area of the railway plant, or the entire plant, and the plant component is univocally associated to a virtual image of the plant component generated by the graphic program, **(H. Figure 3, S1-SN)**

wherein the graphic program generates a different image of each plant component by representing a different graphic aspect condition of the plant component, each aspect condition being associated to a predetermined value of a state variable describing the operating condition of a corresponding plant component, or to a command variable commanding a commutation or a maintenance of an operative state of the plant component, **(H. Figure 3, S1-SN)**

wherein different virtual images corresponding to the different graphic aspect conditions of the plant component are different one from the other and reproduce schematically real modifications of aspects of the plant component in different operating conditions. **(H. Figure 3, S1-SN)**

**It would have been obvious to one of ordinary skill in the art at the time of the invention to graphically display plant components as per H for the plant in D in order “to provide a user interface that permits simple access to information data of a device, in particular a complex device such as an industrial facility” (Hamadou. Paragraph 56) as well as providing a user with “a uniform user interface.” (Hamadou. Paragraph 4)**

#### **Regarding Claim 63:**

**The reference discloses** A method of checking a software logical engine for controlling and commanding a railway plant comprising a plurality of operating units, the method comprising:

providing a central processing unit generating a command signal of the plurality of operating units, the plurality of operating units receiving the command signal and generating a control signal about an operating condition, the control signal being transmitted to the central processing unit, the central processing unit reading the control signal and processing the command signal according to an operation protocol; **(D. First paragraph,**

**ACSL/MMS)**

storing a logical engine, a plant simulation program and a graphic program in one or more memories, the local engine commanding the railway plant, the plant simulation program simulating a railway plant structure and

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operating modes of the plurality of operating units, the plant simulation program comprising a control and command logical program and a plant component simulation program representing operative functions of one or more plant components, wherein a plant component is an operating unit, structural element, area of the railway plant, or the entire plant; (**D. Page 77, right column "full plant controllers"**)

causing the logical engine to command and control the simulation program; and (**D. Page 77, left column "control system and component interaction"**)

**D does not explicitly recite, however H discloses** univocally associating a plant component to a virtual image of the plant component, the virtual image being generated by the graphic program, (**H. Figure 3, S1-SN**)

wherein the graphic program generates a different image of each plant component by representing a different graphic aspect condition of the plant component, each aspect condition being associated to a predetermined value of a state variable describing the operating condition of a corresponding plant component, or to a command variable commanding a commutation or a maintenance of an operative state of the plant component, (**H. Figure 3, S1-SN**)

wherein the virtual image of the plant component is a schematic reproduction of the plant component, and (**H. Figure 3, S1-SN**)

wherein different virtual images corresponding to the different graphic aspect conditions of the plant component are different one from the other and reproduce schematically real modifications of aspects of the plant component in different operating conditions. (**H. Figure 3, S1-SN**)

**It would have been obvious to one of ordinary skill in the art at the time of the invention to graphically display plant components as per H for the plant in D in order "to provide a user interface that permits simple access to information data of a device, in particular a complex device such as an industrial facility" (Hamadou. Paragraph 56) as well as providing a user with "a uniform user interface." (Hamadou. Paragraph 4)**

**Allowable Subject Matter**

6. **Claims 2-4, 7, 14-15, 23-28, 30-32, 34-38, 57, and 59** are allowable following Applicants amendment.

**Claims 8-13, 17-22, 40-56, and 60-61 would be allowable upon** resolving all intervening issues such as the 112 2nd rejections provided.

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Reasons for allowance held in abeyance pending resolution of all issues currently presented.

**Conclusion**

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action.

Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

8. **Claims 8-13, 17-22, 40-56, and 60-63 are rejected.**

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to SAIF A. ALHIJA whose telephone number is (571)272-8635. The examiner can normally be reached on M-F, 11:00-7:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamini Shah can be reached on (571) 272-22792279. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300. *Informal or draft communication, please label PROPOSED or DRAFT*, can be additionally sent to the Examiners fax phone number, (571) 273-8635.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Kamini S Shah/



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Supervisory Patent Examiner, Art Unit 2128

SAA

October 26, 2009